

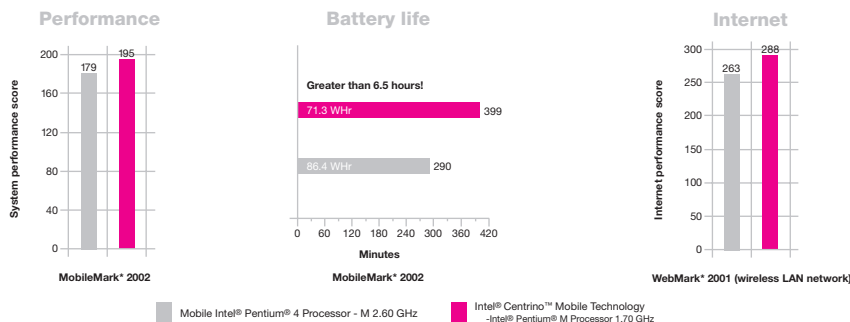


Intel® Centrino™ Mobile Technology.



More than a mobile processor, Intel® Centrino™ mobile technology combines a new microprocessor designed from the ground up for mobility, with a mobile-optimized chipset and an integrated wireless LAN solution. These Intel® components have been designed, tested and validated to work together to enable outstanding mobile performance, extended battery life and integrated wireless LAN capability in thinner, lighter notebooks.*

Measuring mobile experience.



Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software configuration, as well as system use patterns including wireless connectivity, may affect actual test results and ratings. For more information on performance tests and on the performance of Intel products, visit www.intel.com/performance/resources/limits.htm

Product overview

Intel® Centrino™ Mobile Technology... More than a processor.

Intel® microprocessors	Mobile Intel® Pentium® III Processor - M	Mobile Intel® Pentium® 4 Processor - M	Intel® Pentium® M Processor
On-die L2 cache	512 KB	512 KB	1 MB
Processor system bus	133 MHz	400 MHz	400 MHz
Processor frequency up to	1.33 GHz	2.60 GHz	1.70 GHz
Power-optimized processor system bus	No	No	Yes
Dedicated stack manager	No	No	Yes
Micro-ops fusion	No	No	Yes
Support for Enhanced Intel SpeedStep® technology	No ¹	No ¹	Yes
Support for Intel® Mobile Voltage Positioning IV (Intel® MVP)	No	No	Yes
Intel® chipsets	Intel® 830 chipset family	Intel® 845 chipset family	Intel® 855 chipset family
Support for up to 2 GB of DDR	No	No	Yes
USB 2.0 support	No	No ²	Yes
Discrete and integrated graphics chipset solutions	Yes	No ²	Yes
Dynamic I/O buffer disabling for processor system bus and memory	No	No	Yes
Intel® wireless solution	Intel® wireless components may be included in these systems and certain wireless features may be available, however Intel does not conduct the same validation as with the Intel® Centrino™ mobile technology components.		Intel® PRO/Wireless Network Connection
Single 802.11b and dual 802.11a/b band Wi-Fi CERTIFIED* wireless LAN Support™			Yes
Industry standard wireless LAN security support (such as 802.1X, WEP, WPA®) available*			Yes
Cisco® Compatible Extensions (such as LEAP and CKIP) support is available [§]			Yes
Intel® PROSet available with advanced profile management [§]			Yes

Intel® Centrino™ Mobile Technology features and benefits.

<p>Integrated wireless LAN capability</p> 	<p>Feature</p> <p>Single 802.11b and dual 802.11a/b band Wi-Fi CERTIFIED® wireless LAN Support™</p> <p>Industry standard wireless LAN security support (such as 802.1X, WEP, WPA®) available⁺</p> <p>Cisco® Compatible Extensions (such as LEAP and CKIP) support is available[§]</p> <p>Intel® PROSet software with advanced profile management[¶]</p> <p>Support for Intel® Wireless Coexistence System</p>	<p>Benefit</p> <p>Ability to connect to 802.11b and 802.11a/b access points™</p> <p>Enables enhanced wireless LAN security in compliance with evolving industry standards. Intel® Centrino™ mobile technology is Wi-Fi CERTIFIED® for WPA® which supports WLAN interoperability with other certified products⁺</p> <p>With PC manufacturer's availability and validation, this enables interoperability with Cisco Aironet® wireless LAN infrastructure</p> <p>Allows for multiple profile setup and automatic switching between profiles for simplified wireless access as you move between different access points. Allows for ease of setting available security options[§]</p> <p>Enables reduced interference between Intel® PRO/Wireless Network Connection and certain Bluetooth® devices</p>
<p>Breakthrough mobile performance</p> 	<p>1 MB power managed L2 cache</p> <p>Power-optimized 400 MHz processor system bus, Micro-ops Fusion and Dedicated Stack Manager</p> <p>Advanced instruction prediction</p> <p>Second-generation Streaming SIMD Extensions (Streaming SIMD Extensions 2)</p> <p>Support for up to 2 GB of DDR 333/266/200 memory (DDR 333 available on Intel® 855PM chipset only)</p> <p>Optional integrated graphics solution with Intel® Extreme Graphics 2 technology</p> <p>Intel® Stable Image Technology</p> <p>USB 2.0 support</p> <p>Support for antenna diversity</p> <p>Real-time temperature calibration available with 802.11a™</p>	<p>Increases system performance</p> <p>Allows faster execution of instructions at lower power</p> <p>Enables fewer re-dos for increased performance</p> <p>Improves performance and allows SW compatibility with previous Intel® microprocessor generation</p> <p>Enables higher performance and flexibility</p> <p>Delivers intense, realistic 3D graphics with sharp images and enables balanced memory usage between graphics and system for optimal performance</p> <p>Enables chipset HW changes, minimizing impact to IT SW image stability. Additionally Intel® 855GM supports a unified graphics driver, which reduces TCO by converging to one driver for multiple clients</p> <p>Support for USB 2.0 peripherals for 40X max data transfer rate and backward compatible to support USB 1.0 devices</p> <p>For systems designed with two antennas, real-time antenna selection enables optimized WLAN performance</p> <p>Dynamically optimizes wireless performance by adjusting output power to temperature changes for increased throughput and range with 802.11a radio™</p>
<p>Enables extended battery life</p> 	<p>Support for enhanced Intel SpeedStep® technology with multiple voltage and frequency operating points</p> <p>Power-optimized logic design enabling new low voltage capabilities</p> <p>Intelligent power distribution</p> <p>Dynamic input/output buffer disabling for processor system bus and memory</p> <p>Optimized internal clock gating for 3D and display engines with Intel® 855GM</p> <p>Power Save Protocol (PSP)</p> <p>Intel® Intelligent Scanning Technology</p>	<p>Allows for better match of performance to application demand</p> <p>New power-efficient transistor technology optimizes power consumption/dissipation for lower CPU average power</p> <p>Focuses system power where CPU needs it and shuts down anything not being used</p> <p>CPU and/or memory activation/power-down as needed for lower chipset power consumption</p> <p>Lowers chipset power by clocking 3D and display engines only when needed</p> <p>User selectable feature with five different power states allows the user to make their own power versus performance choices when in battery mode</p> <p>Reduces power by controlling the frequency of scanning for access points</p>
<p>Thinner, lighter designs</p> 	<p>Support for Intel® Mobile Voltage Positioning (Intel® MVP IV)</p> <p>Micro FCPGA and FCPGA packaging technology</p> <p>Integrated low voltage differential signal (LVDS) interface with Intel 855GM chipset</p>	<p>Dynamically lowers voltage based on processor activity to lower thermal design power enabling smaller notebooks</p> <p>Optimized for a range of thinner, lighter designs, including <1" thick, that deliver outstanding performance</p> <p>Higher integration consumes less motherboard space, allowing smaller notebook designs</p>

Business: intel.com/ebusiness/mobile Consumer: intel.com/home/notebooks

⁺ Wireless connectivity and some features may require you to purchase or download additional software, services or external hardware. Availability of public wireless LAN access points limited.
System performance measured by MobileMark® 2002. System performance, battery life, wireless performance and functionality will vary depending on your specific hardware and software configurations.
See www.intel.com/products/centrino/more_info for more information.

[∞] Dual band WLAN available in 2H '03 and will support low band capabilities (5.15 GHz to 5.35 GHz). Low band capabilities not supported in all countries. Contact your PC manufacturer for more details.

[§] Some security solutions may not be supported by your PC manufacturer. Check with your PC manufacturer for details on availability.

[¶] Intel® PROSet software may not be supported by your PC manufacturer. Check with your PC manufacturer for details on availability.

¹ Mobile Intel® Pentium® III Processor - M and Mobile Intel® Pentium® 4 Processor - M have support for Enhanced Intel SpeedStep® technology without multiple voltage and frequency operating points

² Available with Intel® 852GM chipset, an additional chipset option for Mobile Intel® Pentium® 4 Processor - M

³ Available with Intel® Centrino™ mobile technology

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